

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

- 1-4. (canceled).
5. (previously presented) An isolated antibody which binds to SEQ ID NO:1.
6. (previously presented) The isolated antibody of claim 5 which is monoclonal.
7. (previously presented) The isolated antibody of claim 5 which is polyclonal.
- 8-37. (canceled).
38. (previously presented) A pharmaceutical composition comprising an isolated antibody which binds to SEQ ID NO:1 and a pharmaceutically acceptable carrier or diluent.
39. (withdrawn - currently amended) A method of screening a sample for a polypeptide comprising the amino acid sequence of SEQ ID NO:1, said method comprising:
 - (a) contacting a test sample with ~~an~~the antibody of claim 5 ~~which binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:1, and~~
 - (b) detecting binding of said antibody to said polypeptide, thereby screening a sample for a polypeptide comprising the amino acid sequence of SEQ ID NO:1.
40. (withdrawn - currently amended) A method of reducing development of resistance to a chemotherapeutic agent in a patient, said method comprising administering ~~an~~the antibody of claim 5 ~~which binds to SEQ ID NO:1~~ to a patient in need of chemotherapy.
41. (new) An isolated antibody which binds to a polypeptide comprising an amino acid sequence selected from the group consisting of:
 - (a) the Walker A motif of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 79 to position 86 of SEQ ID NO:1;
 - (b) the phosphopantetheine site of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 213 to position 227 of SEQ ID NO:1;
 - (c) the first transmembrane domain of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 396 to position 414 of SEQ ID NO:1;

(d) the second transmembrane domain of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 538 to position 554 of SEQ ID NO:1; and

(e) the third transmembrane domain of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 630 to position 647 of SEQ ID NO:1.

42. (new) The isolated antibody of claim 41 which is monoclonal.

43. (new) The isolated antibody of claim 41 which is polyclonal.

44. (new) A pharmaceutical composition comprising an isolated antibody which binds to a polypeptide comprising an amino acid sequence selected from the group consisting of:

(a) the Walker A motif of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 79 to position 86 of SEQ ID NO:1;

(b) the phosphopantetheine site of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 213 to position 227 of SEQ ID NO:1;

(c) the first transmembrane domain of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 396 to position 414 of SEQ ID NO:1;

(d) the second transmembrane domain of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 538 to position 554 of SEQ ID NO:1; and

(e) the third transmembrane domain of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 630 to position 647 of SEQ ID NO:1, and a pharmaceutically acceptable carrier or diluent.

45. (new) A method of screening a sample for a polypeptide comprising the amino acid sequence of SEQ ID NO:1, said method comprising:

(a) contacting a test sample with the antibody of claim 41, and

(b) detecting binding of said antibody to said polypeptide, thereby screening a sample for a polypeptide comprising the amino acid sequence of SEQ ID NO:1.

46. (new) A method of reducing development of resistance to a chemotherapeutic agent in a patient, said method comprising administering the antibody of claim 41 to a patient in need of chemotherapy.

47. (new) A method of reducing development of resistance to a chemotherapeutic agent in a patient, said method comprising administering the pharmaceutical composition of claim 44 to a patient in need of chemotherapy.

48. (new) An isolated antibody which binds to a polypeptide comprising an amino acid sequence selected from the group consisting of:

(a) the Walker A motif of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 79 to position 86 of SEQ ID NO:1;

(b) the phosphopantetheine site of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 213 to position 227 of SEQ ID NO:1;

(c) the first transmembrane domain of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 396 to position 414 of SEQ ID NO:1;

(d) the second transmembrane domain of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 538 to position 554 of SEQ ID NO:1; and

(e) the third transmembrane domain of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 630 to position 647 of SEQ ID NO:1,

wherein said antibody permits accumulation of daunorubicin in MCF-7 cells expressing a polypeptide having the amino acid sequence of SEQ ID NO:1.

49. (new) The isolated antibody of claim 48 which is monoclonal.

50. (new) The isolated antibody of claim 48 which is polyclonal.

51. (new) A pharmaceutical composition comprising an isolated antibody which binds to a polypeptide comprising an amino acid sequence selected from the group consisting of:

(a) the Walker A motif of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 79 to position 86 of SEQ ID NO:1;

(b) the phosphopantetheine site of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 213 to position 227 of SEQ ID NO:1;

(c) the first transmembrane domain of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 396 to position 414 of SEQ ID NO:1;

(d) the second transmembrane domain of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 538 to position 554 of SEQ ID NO:1; and

(e) the third transmembrane domain of the polypeptide of SEQ ID NO:1, consisting of amino acid residues from position 630 to position 647 of SEQ ID NO:1, and a pharmaceutically acceptable carrier or diluent, wherein said antibody permits accumulation of daunorubicin in MCF-7 cells expressing a polypeptide having the amino acid sequence of SEQ ID NO:1.

52. (new) A method of screening a sample for a polypeptide comprising the amino acid sequence of SEQ ID NO:1, said method comprising:

- (a) contacting a test sample with the antibody of claim 48, and
- (b) detecting binding of said antibody to said polypeptide, thereby screening a sample for a polypeptide comprising the amino acid sequence of SEQ ID NO:1.

53. (new) A method of reducing development of resistance to a chemotherapeutic agent in a patient, said method comprising administering the antibody of claim 48 to a patient in need of chemotherapy.

54. (new) A method of reducing development of resistance to a chemotherapeutic agent in a patient, said method comprising administering the pharmaceutical composition of claim 51 to a patient in need of chemotherapy.